



THE REGISTRATION

OF

INFECTIOUS DISEASE.

A REPORT TO THE PARLIAMENTARY BILLS
COMMITTEE OF THE BRITISH
MEDICAL ASSOCIATION.

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OF

INFECTIOUS DISEASE.

British Medical Association.

PARLIAMENTARY BILLS COMMITTEE.

AT a special meeting of this Committee held on the 7th November, 1879, the subjoined report on the recent progress of local legislation with regard to the notification of infectious diseases was submitted by the Chairman. Letters approving of the model clause suggested by the Chairman were read from Dr. Bristowe, President of the Society of Medical Officers of Health, and from Dr. Arthur Ransome, F.R.S., Chairman of the Registration of Disease Committee of the British Medical Association. After discussion, the following resolutions were unanimously adopted:—

- 1. That the Chairman's report be received and adopted by this Committee, and that it be printed and circulated amongst sanitary authorities and others interested in the subject.
- 2. That the assistance of this Committee be, and is hereby, offered to all sanitary authorities who may desire to make statutory provision in their districts for the notification of cases of infectious disease in the manner suggested by the Registration of Disease Committee of the British Medical Association in 1876, the principles of which are embodied in the Model Clause now proposed.

Special Report by the Chairman of the Parliamentary Bills Committee on the Recent Progress of Legislation with Regard to the Notification to Sanitary Authorities of the occurrence of Cases of Infectious Disease (with a proposed Model Clause).

The number of sanitary authorities who submitted for the approval of Parliament, during the session of 1879, clauses in local Acts designed to secure to them knowledge of the existence of each case of infectious disease occurring in their districts, immediately on its recognition, shows an increase so gratifying that I am induced to call the special attention of the Committee to the matter, with a view to the settlement of right principles in this important branch of public health work before the commencement of another session.

The attention of this Committee has long been given to the question of the registration of infectious disease, but has been more particularly directed to the subject since the reference made to it by the Registration of Disease Committee in 1877, "to consider in what form the enforcement of the regulation of all cases of infectious disease on the method already approved by the Association can be best dealt with by the legislature".* On two occasions especially during the present year (March 19th and June 12th, 1879), the subject has been carefully dis-

cussed by this Committee. I have now to call the attention of the Committee to the important fact that the whole of the eight local Bills containing clauses as to the notification of infectious cases that were seriously proceeded with last session have been passed into law with the clauses intact. The authorities of two other places—Exeter and South Shields—had inserted clauses with regard to this matter in their local Bills, but neither of the latter was proceeded with. It may therefore be fairly assumed that Parliament looks with favour upon the registration of infectious disease, which it has long been an object of persons interested in the oublic health to obtain, and will be found ready to approve clauses having this object in all future local Acts submitted to it. Parliament, indeed, may be almost said to regard with undue tolerance the clauses submitted to it, since it has in no case made any serious alteration in the proposals made to it, whether good, bad, or indifferent. It has therefore become to be of great importance that, as already stated, there should, without delay, be a settlement of right principles in the matter for the guidance alike of Parliament and of sanitary authorities.

In the subjoined appendix (A), I have endeavoured to give in such a way as to be readily comparable a synopsis of the various clauses in local Acts now in force with regard to the notification of infectious cases. It will be observed at once that, with regard to the question that has most immediate interest for the members of the medical profession, viz., the person by whom the existence of the disease is to be reported to the sanitary authority, an undue preference has been shown for the Bolton, or dual, method of reporting. By the Bolton Act, and by the Jarrow,

^{*} See Report of the Committee on the Registration of Disease, adopted by the British Medical Association at the annual meeting of 1877.

Llandudno, Warrington, Blackpool, Rotherham, Leicester, and Derby Acts, founded more or less upon it, the duty of making this notification is a duplicate duty alike on the occupier and on the medical attendant; so that the samitary authority has two sources of information about the same thing, paying for one but not for the other. In these Acts, the primâ facie duty of complying with the statute is cast upon the occupier. To that extent certainly they are superior to the Burton-on-Trent Act, which requires the occupier to give notice only when a medical man is not called in, and which thus obviously offers a premium to delay in seeking for medical advice in cases of infectious disease; and to the Edinburgh Act, which by inposing no duty at all upon the occupier, has not only the defects of the Burton-on-Trent Act, but is likely to lead to the employment of quacks and unregistered practitioners to an even greater extent than at present—a thing eminently to be discouraged on every ground of public advantage.*

Many medical men feel that, though the duty of notification is thus cast distinctly upon the occupier in the first instance, yet the doctor may complain of being made to "violate professional confidence" in officially certifying it, even though the sanitary authority knows it, or should know it, already from his client. This may be considered an extreme sensitiveness; but there is a method of notification which is infinitely preferable, and which seems, in fact, the only one which in justice to the profession should in future be allowed. In the Report of the Committee on the Registration of Disease adopted by the British Medical Association in 1876, the relation of the medical profession to this notifi-

cation is thus ably summed up.

"The authoritative declaration of the nature of the disease must necessarily come, in the first instance, from the medical attendant....... On the other hand, to be obliged to furnish information to a public official with regard to sickness occurring in a family might reasonably be resented by the medical profession. It would be regarded by many not merely as an unnecessary addition to their work, but as an inquisitorial test of the extent of their practice, and as leading to a breach of professional confidence that might cause much annoyance both to doctor and patient........No such objections apply to the proposal to make the householder responsible for the declaration of the presence in his house of diseases likely to be injurious to the community. It would, indeed, be in accordance with the precedent set in the Public Health Act of 1875, which enacts (Clause 84) that the keeper of a common lodging-house shall give notice of the presence of fever or any infectious disease, not only to the medical officer of health of the local authority, but also to the Poor-law relieving officer of the union or parish in which the house is situated."

For these reasons, the Committee, whilst cordially supporting the movement to obtain a complete registration of these diseases, expressed their opinion that the proper person to make the return should, in the first instance, be the person in charge of the case, or the householder, and not the medical attendant upon the case. The objections to the latter method are, indeed, manifold, and have been the subject of

^{*} I am afraid, too, that the payment clause in the Edinburgh Act will cause some little friction; and it seems a great pity that Parliament, which has now considerable experience with regard to this subject before it, should have passed without alteration so obviously unworkable a stipulation as that providing for the payment of the fee to the medical practitioner only when his diagnosis has been found "on inquiry by the Modical Officer of Health" to be correct.

further comment by the Committee in their report to the last annual meeting of the Association. They then pointed out that:

- "I. Whatever may be said as to the abstract right of the State to require this service, it is most undesirable that the confidential relation of the medical attendant and patient should be disturbed, or that the former should be placed in the position of an 'informer' in reference to the affairs of the latter.
- "2. It is not well that, in addition to the heavy responsibilities and risk to life attaching to attendance upon cases of infectious disease, medical men should be liable to vexatious actions at law, and to heavy penalties for alleged non-performance of a duty that lies outside of their ordinary practice, and that would be more justly and better performed by persons in charge of the cases.
- "3. Such an enactment would also often tend to defeat its own ends, seeing that it would in many cases prevent resort to medical assistance, or lead to the employment of unqualified practitioners, and to more frequent application to druggists. Patients suffering from these complaints would thus not only run much greater danger to life, but the community would be more frequently exposed to danger of infection.
- "4. Any injury to trade, or to the means of gaining a livelihood, in consequence of this notification, would probably be ascribed to the action of the medical attendant, and, in case of a disputed diagnosis, might lead to further evils than mere loss of practice.
- "5. It is not desirable that the extent of a medical man's practice in these cases should be made known to, and commented upon by, members of the various local sanitary authorities."

None of these objections apply to the plan proposed by the Committee, which I may with satisfaction point out has been adopted at Nottingham and Norwich, as well as, to a less extent, at Huddersfield. By the Nottingham plan, the medical attendant is required to fill up, sign, and deliver to the occupier or person having the management or control of the building, or, in case such person is suffering from infectious disease, to the person in charge of the patient, a certificate, which must be forthwith delivered by the person to whom it is given by the medical practitioner, at the Town Hall, to a clerk or servant of the Corporation. If no medical attendant be called in, the occupier or other person is, so soon as he becomes aware of the existence of the disease, to give notice to the Corporation forthwith. In the event of the sufferer not being a member of the occupier's family, the head of the family (resident in such building) to which the patient belongs, or, if there be no such head, the patient himself (unless prevented by such disease, or by youth), is to give notice of the existence of the disease to the occupier or other person as above.

This plan seems to me entirely to carry out the views of the majority of our Association, and I think it deserves to be followed in all future local enactments on the subject. For the assistance of authorities who may defire to include in their forthcoming improvement Bills sections bearing on the subject, I have drafted a model clause, based partly upon the Nottingham Act and partly upon general experience of the working of the system. The clause would be somewhat to the following effect:—

MODEL CLAUSE.

- "In order to secure that due notice be given to the sanitary authority of any inmate of any building used for human habitation in the district who is suffering from small-pox; cholera; typhus, typhoid, tcarlet, puerperal, or relapsing fever; diphtheria, measles, or erysipelas, she following provision shall have effect; that is to say:
- "I. If any such inmate be suffering from any such disease, and no medical practitioner be attending on, or have been called in to visit, such inmate, the occupier or other person having the management or control of such building, or, if such occupier or other person be prevented by disease or otherwise, the person in charge of such inmate shall, so soon as he shall become aware of the existence in any such inmate of any such disease, forthwith cause notice thereof to be given to the sanitary authority at their office.
- "2. If the person suffering from the disease be not a member of the family of such occupier or person, the head of the family (resident in such building) to which such inmate belongs, or, if there be no such head, then such inmate (unless prevented by reason of such disease or of youth) shall, on becoming aware of the existence in such inmate or in his own person, as the case may be, of such disease, forthwith give notice thereof to such occupier or person.
- "3. Every medical practitioner attending on or called in to visit such inmate shall, on becoming aware that such inmate is suffering from any such disease as aforesaid, forthwith fill up, sign, and deliver to the occupier or person having the management or control of the building, or, in case such person is suffering from such disease, to the person in charge of such inmate, a certificate stating, according to the forms prescribed and supplied to him by the Corporation, the name of such inmate, the situation of such building, and the name of such occupier or person, and the nature of the disease from which such inmate is suffering.
- "4. The person to whom such certificate shall be given by the medical practitioner shall forthwith deliver the same, or cause the same to be delivered, at the office of the sanitary authority, to a clerk or servant of the authority in attendance there.
- "5. The sanitary authority shall supply gratuitously to every registered medical practitioner resident or practising in the district forms for the certificate by such medical practitioner of the particulars hereinbefore mentioned of cases of infectious disease attended by him; and the authority shall pay to every medical practitioner who shall, in pursuance of this section, duly give any such certificate, a fee of two shillings and sixpence in respect of the same; provided that more than one fee shall not become payable under this section within an interval of thirty days to the same medical practitioner, for certificates given by him in respect of the same disease occurring in the same building.
- "6. The sanitary authority may from time to time, by resolution, order that, subject to the approval of the Local Government Board, any acute infectious disease, other than those above mentioned, shall be deemed to be within and subject to the provisions of this section.

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"7. Any such order of the sanitary authority may be permanent or temporary only; and, if temporary, the period during which it is to continue in force shall be specified therein; and when the Local Government Board have approved of any such order, the sanitary authority shall give public notice of the order by causing a copy thereof to be affixed to the principal door of every church and chapel in the district to which notices are usually affixed, and by publishing the same by advertisement in some one or more of the local newspapers circulated in the district; and, after such public notice has been given, the provisions of this section shall, so long as the order continues in force, apply to the acute infectious disease specified therein, in like manner in all respects as if the disease were mentioned in this section."

I append also a model form of the certificate to be given by the medical attendant to the occupier for transmission by the latter to the sanitary authority.

"----- Improvement Act, 18, Section ------.

"Pursuant to the above mentioned Act, I hereby certify and declare that, in my opinion, the undermentioned person is suffering from a disease within the terms of the said Act.

"Dated the day of , 18 .
"(Signed)

Medical Practitioner Duly Registered.

- "1. Name of person suffering from the disease.
- "2. Situation of the building wherein such person is.
- "3. Name of occupier or other person having the management or control of the building.
 - "4. Nature of the disease.

"To Mr. of

"Take notice that this certificate must be forthwith delivered at the office of the sanitary authority to the clerk or servant of the authority in attendance there, under a penalty not exceeding pounds."

With regard to this proposed model clause, only one or two observations seem necessary.* In the list of diseases to be reported,† I have included measles, because, although it may not be strictly amenable to sanitary measures, yet it is intensely infectious, and as such does incalculable mischief at schools, for the benefit of which the disease has been mainly inserted. The clause providing for the inclusion of other diseases within the terms of the section on occasion is intended for emergencies, as when exotic diseases like plague

^{*} In this report I have purposely omitted any discussion of the penalty clause.
† The differences in the diseases to be reported under the various local Acts now in force are worthy of a passing remark. Thus while at Greenock, Jarrow, and Derby, all infectious diseases are to be reported, Huddersfield and Rotherham require "smallpox, cholera, or any contagious or infectious fever", to which Huddersfield adds, "of a dangerous character". Of the rest, small-pox, cholera, typhus, typhoid, scarlatina, and diphtheria are required in all the districts; relapsing fever in all but Llandudno, Leicester, and Edinburgh; puerperal fever in all but Burton-on-Trent, Llandudno, Norwich and Edinburgh; whilst erysipelas is required only at Leicester, and measles only at Blackpool and Edinburgh, whooping-cough being required in no one instance.

or yellow fever are threatening, or when a disease such as diarrhea is more than usually prevalent. Thus at Leicester (where I may mention that the objectors to the recent local Act lost all their points before the Committee of the House of Commons, because they refused to accept the compromise suggested to them by this Committee), it seems to me that it would be very desirable for the local authority to have power to order that all cases of diarrhea (which is annually so terribly fatal in the town) shall, for a fixed period in the summer months, be compulsorily reported to them. We might hope in this way to find a clue to the puzzling recrudescence of this disease in Leicester and other towns as soon as summer approaches.

I do not think it necessary to trouble the Committee with any observations as to the clauses in the Huddersfield and Greenock Acts, which are admittedly tentative and imperfect. I subjoin, however, in a second appendix (B), such information as I have been able to gather relative to the working of these clauses and of Section 87 of the Bolton Act. The time which has elapsed since the other Acts were passed has been too short for any statistics as to their working to be as yet available; but the medical officers of health for all the towns concerned express themselves, so far as I have been able to glean from their published utterances, as expecting incalculable benefit from the operation of the

clauses.

In the preceding remarks, I have studiously avoided, because I have felt it to be unnecessary, any reference to the desirability of information as to infectious disease being brought to the knowledge of the sanitary authorities the moment its existence has been ascertained; but I cannot avoid the expression of my own strong conviction, based not only upon personal experience, but upon an examination of many hundreds of local sanitary reports, that, until such information is made compulsory throughout the country, we cannot hope to keep in check the diseases that annually cause so grievous an amount of preventable suffering and mortality.

ERNEST HART, Chairman of the Committee.

Offices of the British Medical Association, 161A, Strand, London, W.C.
October 23rd, 1879.

Place.	Number of Local Act.	Diseases to be Reported.
r. Huddersfield	39 & 40 Vict., ch. c, s. 67.	Small-pox, cholera, or any contagious or infectious fever of a dangerous character.
2. Bolton	40 & 41 Vict., ch. clxxxviii, s. 87.	Small-pox, cholera, or any contagious or infectious fever.
	Amended by Provi- sional Order in- cluded in 42 & 43 Vict., ch. ciii.	Small-pox, cholera, scarlatina, scarlet fever, typhoid fever, typhus fever, relapsing fever, puerperal fever, and diphtheria.
Greenock	40 & 41 Vict., ch. exciii, s. 202.	"Epidemic, contagious, or infectious disease."
4. Burton-on-Trent	41 Vict., ch. lxi, s. 80	Small-pox, cholera, typhus, typhoid, scarlet fever, diphtheria, or relapsing fever.
5. Nottingham	41 Vict., ch. xci, s. 22.	D

How to be Reported,	Fee to Medical Men for Certificate, with Conditions, if any.	Special Features in Clause.	Penalty for Non-compliance with Section.
Medical attendant to give certificate to occupier or other person in charge of building or room; certificate to be delivered forthwith by latter to sanitary offices or police-station. If no medical man in attendance, inmate himself or occupier to give, or cause to be given, notice. By medical attendant to sanitary authority; notice also to be sent by occupier to sanitary authority; and if patient be not a member of the family of occupier, then notice to be given to occupier by head of patient's		Operation of clause restricted to cases without proper lodging or accommodation, enabling the case to be properly isolated.	£10.
By householder to sanitary inspector within twenty-four hours of existence of disease being ascertained.		Anthority empowered to order by resolution, subject to the approval of the Local Government Board, any other acute infectious discase to be within the provisions of the section: such order to be either permanent or temporary. Notification only required on its being certified by the medical officer of health that "epidemic, contagious, or infectious disease" exists within the limits of the town. Requirement may be confined to any particular district. [On passing of Act, medical officer of health certified the existence of "epidemic, contagious, or infectious disease", and clause has since remained in constant	£2-
a. By medical attendant to sanitary authority. b. If no medical attendant, occupier or person in charge to give notice; and if patient be not a member of occupier's family, then notice to be given by head of patient's family, or by inmate himself, to	One Shilling.	operation.]	£2.
occupier. Medical attendant to give certificate to occupier or person in charge; the latter to deliver the certificate to the sanitary authority. If no medical attendant, as at Burton-on-Trent (b).	Half-a-crown. Not more than one fee to be payable within 30 days to the same practitioner for certificates given in respect of the same disease in the same building.		£5.

Place.	Number of Local Act.	Diseases to be Reported.
6. Jarrow	41 and 42 Vict., ch. cxx, s. 35.	" Infectious Disease."
7. Llandudno	42 Vict., ch. xviii, s. 14 & 15.	Small-pox, cholera, diphtheria, typhus fever, typhoid fever, or scarlatina.
8. Warrington	42 & 43 Vict ch. xcii, s. 23.	Small-pox, cholera, scarlatina, diphtheria, typhus fever, enteric or typhoid fever, relapsing fever, or puerperal fever.
9. Blackpool	42 & 43 Vict., ch. cxcix, s. 75.	Small-pox, infectious cholera, measles, ty- phus, typhoid, scarlet, relapsing, or puer- peral fever, or diphtheria.
ro. Norwich	42 & 43 Vict., ch. cxxv, s. 43.	Small-pox, cholera, typhus, typhoid, scar- let fever, diphtheria, or relapsing fever, or any other infectious disease which the Corporation may from time to time speci- fy, with the sanction of the Local Go- vernment Board.
11. Edinburgh	42 & 43 Vict., ch. cxxxii, s. 208.	Cholera, typhus fever, typhoid fever, diphtheria, small-pox, scarlet fever, scarlatina, and measles.
12. Rotherham	42 & 43 Vict., ch. cxci, s. 94.	Small-pox, cholera, or any contagious or infectious fever.
13. Leicester	42 & 43 Vict., ch. cc, s. 8.	Small-pox, infectious cholera, scarlet fever, typhus fever, typhoid fever, erysipelas, puerperal fever, or diphtheria.
14. Derby.,	42 & 43 Vict., ch. ccxv, s. 93.	"Any infectious disease."

How to be Reported.	Fee to Medical Men for Certificate, with Conditions, if any.	Special Features in Clause.	Penalty for Non-compliance with Section.
By occupier to Corporation; or if patient be not a member of occupier's family, by patient or person having charge of him to Corporation; medical attendant also to send certificate to Corporation.	able in the case of the same illness in the same house or		£5; and £2aday in case of continuing offence.
By occupier or person in charge to salitary authority; medical attendant also to send certificate to authority.	Half-a-crown.		£10.
	Half-a-crown.	Corporation may, with sanction of Local Government Board, declare the section to apply either temporarily or permanently in the case of any contagious or infectious disease specified in such order.	£5: for a second or any subsequent offence, £10.
As Bolton (2), except that notifi- cation is to be made and certifi- cates sent to the medical officer of health of the Corporation.	one certificate needed, and only one fee payable within 30 days to same practitioner in respect of the same disease in the	:	
As Nottingham (5).	same building. Half-a-crown. Not more than three fees to be payable within 30 days to same practitioner for certificates given in respect of the same disease oc- curring in the same		£5.
By Medical Attendant to Medi- cal Officer of Health, within 24 hours of case coming to his knowledge.	be tound on in- quiry by the Medi- cal Officer of Health that the diagnosis was cor- rect".	{No duty at all imposed on occupier. Cases unattended by a Medical Practitioner will thus not be notified at all.}	£2.
As Bolton (2).	Half-a-crown.		
As Bolton (2).	Half-a-crown. Sti- pulation as at Blackpool (9).		£10.
As Bolton (2), except that notifi- cation is to be made and certifi- cates sent to the medical officer at his residence, or to the in- spector of nuisances at his office	Half-a-crown.		£2.

APPENDIX B.

Working of the Local Acts at Huddersfield, Bolton, and Greenock.

Huddersfield. - Clause 67 of the Huddersfield Waterworks and Improvement Act, 1876 (39 and 40 Vict., c. 100), enacts that, in order to secure due notice being given to the Corporation of any inmate of any inhabited house who is suffering from "small-pox, cholera, or any contagious or infections fever of a dangerous character, and who is without proper lodging or accommodation, enabling the case to be properly isolated, so as to prevent the spread of the disease or the proper treatment thereof, every medical practitioner called in to such innute shall forthwith fill up, sign, and deliver to the occupier of the house a certificate on a form to be provided gratuitously by the Corporation, stating the name of such inmate, the situation of the building, and the name of the occupier. The latter is at once to deliver this certificate at the sanitary office or police station of the Corporation; and, in the event of no medical attendant being called in to an inmate who is suffering from infections disease, the occupier or person having charge of the building or room must himself give notice of the existence of the case to the sanitary authority. A fee of half-acrown is payable by the Corporation for each certificate given by a medical man, and a penalty of five pounds is imposed upon every one offending against the enactment. The Huddersfield Act was the first which contained a clause providing for the notification of these cases; and it will be observed that the clause differs from some others passed subsequently in (1) not particularising all the diseases to be certified, but including all dangerous fevers; (2) requiring notice only of those cases which ought to be removed; (3) throwing the onus of giving the information always upon the occupier; and in (4) only obliging the medical man to give the certificate of disease to those who called him in. The last portion was so framed as to get rid of the opposition of the medical men of the town, who objected to being obliged to make known the affairs of their clients to a third party. The portion of the clause limiting its action to cases without proper accommodation was not expected by the medical its action to cases without proper accommodation was not suggested by the medical men, but was accepted by them. When the section came into force, a book of forms with duplicates, and a copy of the medical clauses of the Act, were sent to every practitioner within the borough. At first, a large number of certificates were received, but it was found that the cases had been several days or even weeks ill. The Town Clerk thereupon sent a letter to every medical man in the town, stating that fees would only be paid where certificates were sent at the beginning of the illness.

Some little difficulty also arose as to the proper definition of the term "proper lodging or accommodation". Whilst none of the medical men in the town were absolutely averse to giving the certificate in proper cases, there seemed to be considerable difference of opinion as to what were proper cases. Under these circumstances, and in view of the difficulty that might arise through the practitioner being sent for who was least likely to take an unfavourable view of the accommodation for isolation, it was deemed expedient to get an authoritative opinion on the subject from the Medical Officer of Health (Dr. Spottiswoode Cameron). In his definition of the phrase in question, Dr. Cameron gave it as his opinion that, where scarlatina broke out in one member of a family, and such member could not be furnished with a separate apartment, he was without proper accommodation; indeed, he went further, and said that such a patient should be kept to a separate apartment until the skin had ceased to peel off. Even where a separate room could be had for the patient, he thought the "accommodation" was not sufficient unless the person nursing the sick one either kept entirely to the sick-room or changed his or her dress, and was careful about washing on leaving the room. A patient was without "accommodation" if there were not sufficient provision for ventilating the sick chamber from the outside; and the amount of fresh air supplied per hour should not be less than two thousand cubic feet for an adult man, though the patient would be better if he had three thousand. What held of the isolation of scarlet fever held as strongly of small-

pox, and nearly as strongly of typhus and relapsing fevers. The necessity for fresh air was even greater in typhus and typhoid fevers.

Since the issue of this circular, the clause has worked better, though there can be no doubt that the authorities are still very far from being acquainted with every case no doubt that the authorities are still very far from being acquainted with every case that occurs. No details are forthcoming as to the number of cases reported under Clause 67 prior to October 1st, 1877, when Dr. Cameron took up the duties of Medical Officer of Health; but, since that time to the end of 1878, 199 notices were received under the clause, the majority of them being cases of scarlet fever. The proportion of reported cases to deaths from the same diseases was, for the fourth quarter of 1877, 152 to 100; and in the four quarters of 1878, 275, 200, 282, and 223 to 100 respectively. The clause seems, therefore, to have been more carefully complied with during 1878 than during that part of 1877 for which detailed information is available. This inference is borne out by the fact that a much greater number of cases were treated in the Borough Infectious Hospital, during 1878, than during previous years; and that this is due to the greater number of cases reported, rather than to the greater number of cases occurring, is rendered probable from the diminished mortality from these diseases which has existed, along with the

greater number of cases within the cognisance of the sanitary officials.

On the whole, the provision is considered to have operated with substantial advantage to the public health, by affording to the officers of the authority, in the instances that more particularly need their intervention, early information of outbreaks of infectious disease; and thus enabling them either to secure the removal of the patient to hospital, or to advise as to means for isolation at home; to prevent, as far as possible, other members of the family from carrying the infection abroad in their clothes, and especially to restrain parents from sending children to school in cases where they would be likely to spread the disease; to secure the due use of requisite processes of disinfection; and to remedy sanitary faults in drainage, watersupply, or the disposal of refuse. As an illustration of one kind of advantage thus gained, Dr. Cameron refers to an instance in which three certificates were nearly simultaneously received, notifying outbreaks of typhoid fever in various parts of the town. Examination of the residences of the patients failed to show any grave sanitary defects, nor could the origin of the outbreak be traced, until it was observed that all three persons were employed in one of the local public offices; and, on this office being inspected, it appeared that its sanitary arrangements were seriously defective, and that a fourth person engaged there had been also attacked. As the patients all recovered, it is quite possible that, but for the system of notification, the attention of the authority might not have been called to the outbreak at all; and that the unwholesome condition of the public office in question might have escaped attention. the unwholesome condition of the public office in question might have escaped attention, and have remained unremedied.

Again: the information obtained under the clause in one case has often led to Magin. the mormanon obtained under the clause in one case has often led to further inquiries in a neighbourhood, and the discovery of other cases of which the Medical Officer of Health had no information. These unreported cases have been chiefly those in which no medical man has been called in, or in which medical advice has not been sought in time. It is here that the working of the clause is most defective. The medical men practising in the borough are generally most prompt in sending notice; but in very many cases they are not called in till one child is dying, and a second or third has taken the disease.

Every case reported has been entered into a book, with such particulars as can be obtained as to the extent of accommodation and number of inmates in the houses; the condition of the drainage and privy accommodation; the water- and milk-supply; the probable source of infection; the school or workplace frequented by the patient and other members of the family; the date of attack; and other matters likely to be of importance. The same particulars are obtained in all cases of death from the more importance. The same particulars are obtained in all cases of death from the more important zymotic diseases, such as fever and scarlet fever; and entered, with a mark to distinguish them from the others, in the same book. This book thus contains a permanent record and important details of a large proportion of the infectious fevers that have occurred in the borough. It has already proved of great service in tracing out cases of disease; and will, as time goes on, become increasingly valuable as showing the localities of these diseases, and the local conditions associated with as showing the localities of these diseases, and the local conditions associated with them. Its value will also be greater from the fact that the cases reported under the clause, being those in which the accommodation for isolation is deficient, occur mostly in those localities to which the efforts of the sanitary staff, in trying to prevent the spread of these diseases, must be most strenuously directed.

Bolton.—The Town Council of Bolton have the credit of being the first sanitary authority in the kingdom that applied to Parliament for, and obtained, powers for making compulsory the notification to them of cases of infectious disease occurring amongst all classes of the community in their town. Considering the tentative character of the Bolton measure, it is not surprising that some difficulties should have at first arisen in carrying it out, especially amongst members of the medical profession: bin, after an amicable conference of the Corporation and the Bolton Medical Society, an arrangement was come to which was not only more just to the profession, but enabled the Act to work more smoothly. The Corporation deemed it, however, desirable to have the Act amended in certain particulars, and accordingly petitioned the Local Government Board for a provisional order for this purpose. An inquiry note the subject was accordingly held at Bolton by Mr. C. N. Dalton (legal) and Mr. W. H. Power (medical), inspectors of the Board; and, as the result, a Provisional Order (subsequently included in one of the confirming Acts of last Session) was issued, changing the diseases to be reported to the authority from "small-pox, cholera, or any contagious or infectious fever", to "small-pox, cholera, scarlatina, scarlet fever, typle if fever, typhus fever, relapsing fever, puerperal fever, and diphtheria"; giving the Council power to add any other acute infectious disease, with the approval of the Local Government Board; providing that such order may be either permanent or the council making other minor alterations. Mr. Sergeant, the medical officer but, after an amicable conference of the Corporation and the Bolton Medical Society,

of health, in his report for the year 1878, says that this compulsory notification has, in his opinion, largely contributed to diminishing the deaths from fever and small-pox. Although the general zymotic rate for the year was not markedly affected by the provision in the Act, he believes that, when it has settled down into thorough working order, a satisfactory decline will soon be observed. The compulsory provision had been in operation a year at the date of the report; and, though it is obvious from the subjoined figures that not all the infectious disease was reported, yet a very large proportion, sufficient to satisfy one of its ultimate benefit, was notified. During the year, the number of cases reported was; small-pox, 2 (no deaths); measles, 560 (42 deaths); scarlet fever, 1,093 (144 deaths); dipltheria, 17 (2 deaths); typhus fever, 27 (3 deaths); typhoid, 129 (29 deaths); continued fever, 97 (7 deaths); puerperal fever, 4 (2 deaths); and cholera, 4 (4 deaths); total, 1,939 cases and 233 deaths. The information received of infections disease has, according to Mr. Sergeant, been of practical value in bringing to light unhealthy conditions in houses which might otherwise have existed until further disease, or possibly death, had taken place. In many cases, he has been enabled to limit the spread of the disease by careful attention to cleansing and disinfection of the house and clothing, and by the means taken to insure isolation of the infected patients as far as possible. The knowledge has also been beneficially used in keeping children likely to spread infection from attending school, and so has assisted in eliminating a danger which ought not to occur.

Greenock was the third town in the United Kingdom, and the first in Scotland, that took powers to itself for requiring notification to be given of the occurrence of cases of infectious disease within it. Up to the present, Greenock and Edinburgh are the only towns in Scotland that possess such powers under Act of Parliament, although Dundee has recently made the notification of infectious cases the subject of a by-law. By Section 202 of the "Greenock Police Act" of 1877, it was provided that "it shall be lawful for the Board of Police, on its being certified to them by the medical officer that epidemic, contagious, or infectious disease exists within the limits of the town, to issue an order requiring every householder within the town, or any particular district thereof, to report, within twenty-four hours from the time when the existence of such disease in his house has been ascertained, at the office of the Sanitary Inspector, any case of contagious or infectious disease which may occur in such house; and public notice of such order shall be given by means of placards posted in public places within the town; and any householder failing to comply with such order of the Board shall be liable to a penalty not exceeding twenty shillings". It will be observed that this section is not in force until the medical officer of health has certified the existence of infectious disease within the town. As a matter of fact, however, the certificates to that effect which Dr. Wallace gave on the passing of the Act remained good up to a recent date, when, in consequence of the carelessness of the public in reporting cases of whooping cough, which has been for some time epidemic, a fresh certificate was given, with a view to the Board of Police advertising again, so that the plea of ignorance on the part of the public might have no justification. Accordingly, public notices have now been issued, drawing attention to the requirements of the Act, and directing information be given as to the existence of either scarlet fever, smal











